



BioMed Research International

Special Issue on
Mitochondrial Dysfunction in Renal Disease

CALL FOR PAPERS

Mitochondria are intracellular organelles responsible for energy production that play critical roles regulating multiple cellular functions including generation of reactive oxygen species, proliferation, apoptosis, and calcium homeostasis. The kidney has constantly high energy demands related to ATP-dependent tubular reabsorption, which requires a very high density of mitochondria. Over the last couple of decades, mitochondrial abnormalities and dysfunction have been associated with a wide array of renal diseases, but the exact mechanisms implicating mitochondria in the pathophysiology of renal disease remain to be clarified. Understanding these mechanisms will aid the development of novel strategies to improve mitochondrial function in the setting of renal disease. We invite investigators to contribute original research articles and review articles that help us to get more insight into the role of mitochondria in the pathogenesis of kidney disease and the development of strategies to treat these conditions.

Potential topics include, but are not limited to:

- ▶ Experimental and clinical evidence of detrimental of mitochondrial structure, function, and viability in kidney diseases
- ▶ Influence of mitochondrial biogenesis, dynamics, and mitophagy on restoration of renal function
- ▶ Elucidating the role of mitochondrial oxidative stress in the pathogenesis of renal injury
- ▶ SNPs genomic genes necessary for mitochondrial function other than accumulated errors in the mitochondrial genome
- ▶ Identifying markers of renal mitochondrial injury/dysfunction
- ▶ Recent advances in methods to assess renal mitochondrial function
- ▶ Novel therapeutic approaches to attenuate renal mitochondrial injury and dysfunction
- ▶ Mechanisms of mitochondrial recovery in kidney disease
- ▶ Development of mitochondria-targeted therapies for renal disease

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/nephrology/mdr/>.

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First Round of Reviews

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